

CHAPTER II

LITERATURE REVIEW

This chapter presents the theory related to the research as the framework of this research. This chapter explains about perception, asynchronous learning, and synchronous learning.

A. Perception

1. Definition of Perception

There are many definitions of perception, each expert defines the term “perception” differently. Perception as the process of how the information is acquired through the sensory receptors (e.g. eyes, ears, nose, and skin) which is transformed into a perception of what we think, see, hear, smell, taste, or touch (Mussen: 1973). According to Walgito (2004: 70) stated that perception is a process of organizing, interpreting stimulus that is received by an organism or individual so that it becomes something meaningful, and it is an activity integrated on the individual. There are two kinds of perceptions, positive perception and negative perception (Irwanto, 2002: 37). Positive perception is the point at which somebody positively sees something or the world, for the most part, according to Irwanto (2002: 38) somebody with positive perception will bring numerous positive things to come on their life and they generally feel cheerful and make the most of their life. While negative perception is an antagonistic perspective of a person towards something or the world that they see. Somebody with a

negative perception more often than not observes the world in a negative way (Irwanto, 2002: 38).

Based on the statements, perception has meaning as a capability to draw and describe what they feel and they can catch it into a positive or negative side. On the other hand, perception is a response or reaction to their notion.

2. Aspects of Perception

There are three aspects of perception according to Walgito (1997):

1) Cognitive

This aspect contains the components of knowledge, viewpoint, expectation, and mind-set to get the insight, the past experiences, and everything that is obtained from individual thought.

2) Affective

This aspect consists of the components; feelings and someone's emotional condition of the certain object, everything about the evaluation of good and bad things based on their emotional factors.

3) Conative

This aspect is related to motivation, attitude, behaviour or individual's activity in accordance with their perception of an object or certain circumstances. The existence of someone's perception is influenced by everything that is obtained from the results of individual thoughts, everything about the good or bad judgment that involves factors in his emotional condition, and individual attitudes or behaviour towards an

object or certain situation. These aspects are successful in making an individual's perceptions of something.

The researcher will use this theory in this research to applied on questionnaires.

3. Conditions of Perception

The requirements for the occurrence of perception are as follows (Sunaryo, 004: 98)

1. The clear object to be perceived
2. Attention as the first step for a preparation in holding perception
3. The existence of a receptor sensory device that is a tool to receive stimulus.
4. Sensory nerves as a tool to continue the stimulus to the brain and then as a tool to hold a response.

4. Indicators of Perception

The indicators of perception are as follows (Walgito, 1990)

1. Absorbing, in this case, stimulation is absorbed or received through seeing, listening, sensing, smelling, and tasting. The result of absorption is impression.
2. Understanding or comprehending, in this case, after someone gets an impression, it then be organized, be classified, be compared, and then be interpreted before it comes to an understanding or comprehension. The process of understanding is unique and fast and sometimes influences by old impression or apperception.

3. Evaluating, in this case, after an understanding or comprehending, comes an evaluation.

B. Asynchronous Learning

Asynchronous e-learning, commonly facilitated by media such as e-mail and discussion boards, supports work relations among learners and teachers, even when participants cannot be online at the same time (Hrastinski, 2008). On the other hand, one of the popular definitions that focus on the components of asynchronous e-learning introduced it as “an interactive learning community that is not limited by time, place or the constraints of a classroom” (Mayadas, 1997). Khan (2006) on the basis of these components mentioned that “Asynchronous learning refers to instruction that is not constrained by geography or time” (Khan, 2005). Asynchronous means that the learners and the facilitator do not participate in the meeting at the same time, for example, emails, web, blog, internet chat, and many more.

Asynchronous is a mode for conducting learning activities outside the classroom where these activities are at the same time but are carried out online using communication support media such as email and discussion boards. Teachers and students cannot interact directly and cannot know the actual conditions that occur in the field, teachers can only monitor remotely using communication media. Asynchronous learning can be accessed wherever and whenever students are because asynchronous is not limited by space and time so that asynchronous gives a long time for students to download learning

material documents. There are advantages and disadvantages of Asynchronous teaching and learning, as stated as follows:

1) Asynchronous Learning Advantages

There are clear benefits to utilizing asynchronous learning, and most boil down to a healthy respect for the individual. Not all learners absorb material in the same way, so autonomous learning means they can brush up on the stuff they need and skip the material they already know. It's also the most flexible method for learning, which is ideal for tight schedules and large groups. And, since it's learner-led, students can read material, think and reflect before answering questions or joining discussions. Of course, the fact that asynchronous learning programs are cheaper to produce and administer doesn't hurt the case, either.

2) Asynchronous Learning Disadvantages

Synchronous learning sounds pretty flawless (Maklout, 2014) but it's definitely not perfect. Unfortunately, the lack of a class atmosphere, sometimes causes disconnected among the learners, the material and the other people involved – both instructor and other students. That can result in a lack of motivation to log in, read the material and finish the course while flying solo.

C. Synchronous Learning

Synchronous e-learning, is commonly supported by media such as video conferencing (Indarti et al. 2015). Hofmann (2003:10) states that “synchronous” refers to training delivered in real-time by a facilitator, such as

synchronous communications usually over the internet, including phone calls, text messages, video conferences, whiteboard meetings, and synchronous classes. Synchronous teaching and learning or real-time teaching-learning is multifaced and can be conceptualized as either short-form or long-form, depending on the purpose and platform of the learning (Jiyoon & Peggy, 2019). Basically, this learning activity is face to face using video conferencing. Learning process is carried out in different places but at the same time, the only difference is that learning is not done in class but through video conferencing. Video conferencing makes it easier for teacher and student interactions to be more easily directed where teachers will see their students directly even though they are not in the same room. While its use is still limited (Sloan, 2013), synchronous method for delivery of online courses brings teacher and students together simultaneously in virtual spaces. The interaction of teacher and students through video conferencing takes place during the learning process and stops after the learning activity ends, it is hoped that students will be able to understand all the features in synchronous communication media to facilitate the learning process.

In the application of asynchronous learning or synchronous learning are often found technical advantages and disadvantages, but the existence of a consistent interface is a very valuable and efficient investment where it is not found in asynchronous learning (Donath, 2008). According to Christopher (2015) there are advantages and disadvantages of Synchronous teaching and learning, as stated as follows:

1) Synchronous Learning Advantages:

a. It is cost effective

Imagine having the chance to provide them with knowledge from the best experts from around the world for their training, without paying the accommodation and travel expenses that traditional corporate training involves. Your employees can take their online training courses at home or at their offices while connecting not only with the most reputable trainers, but also with their colleagues who live in different cities or even different countries without having to move. The only costs you need to have in mind are those related to the development of the eLearning course, as well as the trainer fees.

b. It is convenient

Taking an online training course without having to be in the same location with the rest of your peers, regardless of their position on the world map, provides a great level of flexibility, especially for large organizations that have a globally distributed workforce. Apart from videoconferencing, your employees are given the opportunity to participate in online discussions from any location, as long as they have an internet connection. As physical barriers of distance are eliminated, your staff may use any device for their online training, from desktop computers to mobile phones and tablets.

c. Provides immediate feedback

Real-time interaction means instant feedback, and instant feedback

allows not only your employees to immediately get their questions answered, but also trainers and instructors to immediately recognize difficulties in understanding of the online course material. Rapid feedback has an incredibly important role in eLearning; it enhances knowledge retention by keeping your audience active in the learning process, as a quick response allows your audience to learn from their mistakes and to eliminate the chances of repeating them in the future.

d. It is highly motivating

Asynchronous learning environment enhances learning by increasing your corporate **audience's motivation** levels, as real-time interactions are much more engaging than the isolated environment of asynchronous learning. Using performance goals in real-time activities is a great way to inspire your employees to demonstrate and develop their skills and abilities while competing with each other in engaging team player eLearning games. Real-time activities provide ongoing motivation, as they encourage participation from all employees, even the most reticent ones.

e. Fosters a sense of community

Social interaction and collaboration are the essence of synchronous learning, as your employees have the ability to communicate not only with their trainers and instructors, but also with each other, no matter where they are located. Organizing a series of online group activities encourages team work and cooperation, as online discussions allow

your audience to develop their learning community in online forums or in social networks and exchange ideas, questions, and concerns about the e-Learning course material.

2) Synchronous Learning Disadvantages

a. It is strictly technology-based

This goes, of course, for online learning in general; however, the truth is there are several large organizations, the employees of which may still lack sufficient computer skills in order to get their training online. This means that these people might struggle to engage in a synchronous online training program. Lack of technical knowledge, poor computer skills, and inability to handle the various technologies involved in synchronous learning may tremendously frustrate and discourage online learners, so high dropout rates might be expected.

b. Demands a high speed internet connection

It is true that synchronous learning requires a good bandwidth, and this could be an issue when online training for distributed workforce is involved. Trying to synchronize several different areas in the world via collaborative learning technologies can be challenging, but different bandwidth capabilities may create serious problems.

c. Local time barriers

Synchronous learning eliminates barriers of distance, but what about barriers of time? Different time zones can create communication challenges, as a synchronous learning course requires from both

employees and trainers to be online at the same time. Distributed workforce has conflicting work schedules, and sometimes not even technology is able to facilitate real-time interactions.

d. Requires careful planning.

Speaking of conflicting schedules, as a consequence of the above disadvantage comes from the challenging planning process that synchronous learning requires. Coordination of schedules is absolutely necessary, but sometimes not possible. To ensure full participation to an asynchronous learning course you need to carefully plan your online meetings; however, different time zones can lead to very limited time frames, which naturally weaken both the training group's identity and the virtual community's interpersonal bonds.

e. It is challenging for employees with poor social skills.

Studying at one's own pace creates a sense of isolation, but some of your employees might crave this exact sense. A synchronous learning experience demands active participation and collaboration, and some members of your workforce might not be as social, as open, or as communicative. This is not a wrong thing by default; after all, you don't need all of your employees to have strong communication skills, only the ones that are expected to work closely with others or to connect with customers. However, in a synchronous learning environment the "quieter" employees may find it challenging to participate in online discussions or online group activities, and learner frustration is never

welcome in a successful online training program.

The table at the bottom shows off the kinds of communication tools that are used to do the activities of asynchronous and synchronous learning and the table reveal the type and category of communication tools.

Name	Communication type	Category
Whatsapp (WA)	<i>Synchronous dan asynchronous</i>	<i>Instan Messaging, VoIP</i>
Zoom Meeting	<i>Synchronous</i>	<i>Video Conferencing</i>
Google Meet	<i>Synchronous</i>	<i>Video Conferencing</i>
Microsoft Team	<i>Synchronous</i>	<i>Video Conferencing</i>
Google Clasroom	<i>Asynchronous and Synchronous</i>	LMS
Edmodo	<i>Asynchronous and Synchronous</i>	LMS
Moodle	<i>Asynchronous</i>	LMS
Youtube	<i>Synchronous dan Asynchronous</i>	<i>Streaming Video, Video on Demand</i>
Google Form	<i>Asynchronous</i>	Formulir <i>cloud</i>
Google Drive	<i>Asynchronous</i>	Penyimpanan <i>cloud</i>
Quizziz	<i>Asynchronous</i>	Gamifikasi Tugas
Gmail	<i>Asynchronous</i>	Email

Table 2.1 Communication tools

D. Previous Study

In this research, the writer reviews several studies conducted by the previous researchers as composition:

1. This study analyses the students' perception about online learning during COVID-19 (Zhafira, 2020).

The results of data processing show that out of 165 students of the Faculty of Economics Teuku Umar University, which belongs to the millennial group based on age, is more comfortable to use the *whatsapp* and *google classroom* application for use in the model of this online learning. The application is already familiar to them or easy to understand because it tends to be similar to some of the applications they usually use in their daily activities days.. Only half of the total population already know the application. However, with this online learning activity, students can learn about something new that they may not have planned before. Other than that, most students have a visual learning style that is more directed to the media image, text, or photo. This relates to student habits in daily activities and conventional learning routines in the classroom, where lecture materials are distributed to students through power points, presentations using graphs, diagrams, or with reading from the guide books suggested by the lecturer.

Based on the previous study, the students of Faculty of Economics of Teuku Umar University are more confident if the learning process uses asynchronous learning than synchronous learning because this relates to their daily activity in the class before any online learning.

2. This study analyzes Students' Perception of Online Learning in Covid-19 Pandemic: A Preparation for Developing a Strategy for Learning from Home (Heni Rita Susila, Arief Qosim, Tri Rositasari, 2020).

The online learning process during the Covid-19 pandemic has been going on, but not all students were satisfied throughout the learning from home process. Their main obstacle is that not all internet connections work properly. Survey results showed that students had high interest in learning using video, learning using LMS (Learning Management System) and printed media. Otherwise, the fact that internet connections in some area are not supporting to prepare online learning. Researchers suggest that instructional design can develop learning from home which combine interactive online and offline learning. Some alternatives could be a tutorial video, printed media, articles, documents, slides, with recommendations for best practices for remote teaching and designed special for a course. Then for communication and interaction, lecturer could use social media that were easily used and sometime free from the internet provider.

Based on the previous study, the students at Educational Technology Department from the first semester students to the last semester consist of 174 students at Baturaja University are more confident if the learning process uses synchronous learning (video conferencing) than asynchronous learning.

The difference between the previous study is the subject of the study. The researcher uses English Education Study Program students of Universitas Muhammadiyah Purwokerto as the subject of this study.

